

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1.     **(Cancelled)**
2.     **(Cancelled)**
3.     **(Cancelled)**
4.     **(Cancelled)**
5.     **(Cancelled)**
6.     **(Cancelled)**
7.     **(Cancelled)**
8.     **(Cancelled)**
  
9.     **(Previously Presented)**     An optical module comprising:
  - an active optical component;
  - an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber;
  - a beam shaping optical component located in the optical path between the optical fiber and the active optical component;
  - a positioning device for moving at least one of the beam shaping optical component with respect to the optical fiber, the beam shaping optical component with respect to the active optical component, and the active optical component with respect to the optical fiber; and
  - a frame to which the optical fiber is affixed, wherein the positioning device comprises a first micro-machined movable stage affixed between the frame and the active optical component, and the positioning device additionally comprises a second micro-machined movable stage affixed between the frame and the beam shaping optical component.
  
10.    **(Currently Amended)**     An optical module comprising:
  - an active optical component;
  - an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber;

a beam shaping optical component located in the optical path between the optical fiber and the active optical component;

a positioning device for moving at least one of the beam shaping optical component with respect to the optical fiber, the beam shaping optical component with respect to the active optical component, and the active optical component with respect to the optical fiber; and

a frame to which the optical fiber is affixed, wherein the positioning device comprises a first micro-machined movable stage affixed between the frame and the optical fiber and movable in a first direction, and the positioning device additionally comprises a second micro-machined movable stage affixed between the frame and the beam shaping optical component and movable in a second direction transverse to the first direction.

11. **(Previously Presented)** An optical module comprising:

an active optical component;

an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber;

a beam shaping optical component located in the optical path between the optical fiber and the active optical component;

a positioning device for moving at least one of the beam shaping optical component with respect to the optical fiber, the beam shaping optical component with respect to the active optical component, and the active optical component with respect to the optical fiber; and

a frame to which the optical fiber is affixed, wherein the positioning device comprises a first micro-machined movable stage affixed between the frame and the active optical component, and the positioning device additionally comprises a second micro-machined movable stage affixed between the frame and the optical fiber.

12. **(Cancelled)**

13. **(Previously Presented)** An optical module comprising:

an active optical component;

an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber;

a beam shaping optical component located in the optical path between the optical fiber and the active optical component;

a positioning device for moving at least one of the beam shaping optical component with respect to the optical fiber, the beam shaping optical component with respect to the active optical component, and the active optical component with respect to the optical fiber; and

means for holding the positioning device in position, wherein the means for holding comprises a position memory circuit operable to control the positioning device.

14. **(Cancelled)**

15. **(Cancelled)**

16. **(Currently Amended)** An optical module comprising:

an active optical component;

an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber;

a beam shaping optical component located in the optical path between the optical fiber and the active optical component;

a positioning device for moving at least one of the beam shaping optical component with respect to the optical fiber, the beam shaping optical component with respect to the active optical component, and the active optical component with respect to the optical fiber; and

means for holding the positioning device in position, wherein the means for holding comprises an adhesive and a micro heater capable of activating the adhesive.

17. **(Cancelled)**

18. (Currently Amended) An optical module ~~according to claim 16,~~  
comprising:

an active optical component;

an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber;

a beam shaping optical component located in the optical path between the optical fiber and the active optical component;

a positioning device for moving at least one of the beam shaping optical component with respect to the optical fiber, the beam shaping optical component with respect to the active optical component, and the active optical component with respect to the optical fiber; and

means for holding the positioning device in position, wherein the means for holding comprises an ~~wherein the~~ adhesive is capable of activation by exposure to RF radiation.

19. (Currently Amended) An optical module ~~according to claim 16, further~~  
comprising:

an active optical component;

an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber;

a beam shaping optical component located in the optical path between the optical fiber and the active optical component;

a positioning device for moving at least one of the beam shaping optical component with respect to the optical fiber, the beam shaping optical component with respect to the active optical component, and the active optical component with respect to the optical fiber; and

means for holding the positioning device in position, wherein the means for holding comprises a position memory circuit operable to control the positioning device.

20. **(Currently Amended)** A method of making an optical module comprising:

assembling an active optical component, an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber, a beam shaping optical component located in the optical path between the optical fiber and the active optical component, and a positioning device capable of moving the active optical component with respect to the optical fiber;

aligning to maximize coupling between the optical fiber and the active optical component by moving the optical fiber and the active optical component with respect to one another in first and second directions, each of the first and second directions being transverse to one another, and both the first and second directions being transverse to the optical path; and

holding one of the active optical component and the optical fiber in position with respect to the other after aligning.

21. **(Cancelled)**

22. **(Currently Amended)** A method of making an optical module comprising:

assembling an active optical component, an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber, a beam shaping optical component located in the optical path between the optical fiber and the active optical component, and a positioning device capable of moving one of a pair of elements with respect to the other, the pair of elements comprising one of (a) the beam shaping optical component and the optical fiber, (b) the beam shaping optical component and the active optical component and (c) the active optical component with respect to the optical fiber;

aligning to maximize coupling between the optical fiber and the active optical component; and

holding one of the pair of elements in position with respect to the other after aligning by activating an adhesive set by exposure to RF radiation.

23. **(Cancelled)**

24. **(Previously Presented)** A method of making an optical module comprising:

assembling an active optical component, an optical fiber arranged with respect to the active optical component to be capable of propagating light along an optical path between the active optical component and the optical fiber, a beam shaping optical component located in the optical path between the optical fiber and the active optical component, and a positioning device capable of moving one of a pair of elements with respect to the other, the pair of elements comprising one of (a) the beam shaping optical component and the optical fiber, (b) the beam shaping optical component and the active optical component and (c) the active optical component with respect to the optical fiber;

aligning to maximize coupling between the optical fiber and the active optical component; and

positioning the positioning device according to a position memory circuit.